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[The Edge of Human? The Problem with the Posthuman as the 'Beyond'.](#)

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The Edge Of Human? The problem with the posthuman as the 'beyond'.

As the debate around human enhancement technologies continues and enters a new phase, more and more attention is being paid to whether there is a stage at which the enhanced human becomes something else, no longer human as we are. A common critical refrain serenades the fear that we will leave our humanity behind and become something else, something other- usually termed 'posthuman'. Yet, how we should define the 'posthuman' remains unclear.

To talk about the 'posthuman' as if we have left humanity behind, either in the sense of having gone 'beyond' human or as a certain set of creatures apart from humanity, is both misleading and dangerous. It is misleading because it is a hyper-inflated claim, as I will show, and it is dangerous because it encourages the belief that the world is- or will soon become- peopled with different classes of being. This may engender if not false, then at least dangerous beliefs about rights, duties, and moral status.

It is undeniable that enhancement technologies exist, are used, and will continue to develop; and it is idle to claim that we ought avoid them wholesale. Depending upon one's definition,¹ from integrated technoscientific interventions like nootropics and bionic prostheses; through external technologies, anything from eyeglasses to the smartphone; even down to anthropological phenomena such as education and agriculture; it is possible to argue that our lives and lifestyles already rely on these enhancements today, and perhaps even that they form the basis of what makes us who we are. This being so, it is important that we find a way to reconcile ourselves with the beings we may become, since 'they' and we are products of the same process. In what follows, I will set the basis for an argument that what might make us 'posthuman' is in fact that which makes us (merely!) 'human', amplified perhaps; but the same collection of traits, characteristics, and measures of moral value as we have ever aspired to possess as markers of our humanity. I will argue that to be 'posthuman' is in truth to be more human than human - more successful at embodying these traits than we, who consider ourselves the model of humanity, do. It is not, as critics may claim, to be beyond, to be something to fear, something fundamentally different.

Unfortunately the 'posthuman' is, at best, an uncertain proposition. What, exactly, would one be, or be like?

¹ An issue I have covered elsewhere in some depth. D.R. Lawrence. To what extent is the use of human enhancements defended in international human rights legislation? *Medical Law International* 2013;13(4):254-278.

Posthuman as Beyond

The term is frequently bandied about in the literature. It appears to be used, in general, as shorthand for any being beyond those we can currently create or imagine evolving in the foreseeable future without our help. I use the term 'appears to be' for a reason, however- no author seems to mean quite the same thing by it. Very few commentators choose to elaborate on the term to elucidate their intended meaning, instead dropping the term straight into their argument, and this frequently seems to lead to an understandable- yet misguided and unnecessary- confusion. One of the exceptions to this rule is explored below, but let us briefly examine the term itself.

The semantics and etymology of the word are fairly plain- 'post-' being transparently derived as a prefix from the Latin 'post', meaning 'after' or 'behind', and being defined in English as "after in time or order"². Logic dictates, therefore, that a posthuman would be something which supersedes (whether that be replacing or co-existing with) humanity. This notion tends to be present in critical literature and commentary on the subject, and as we will see may in fact be the only commonality between the many examples of such.

In the absence of explicitly stated philosophically principled reasons for assuming a particular account of 'human'- if the etymology holds true- it is difficult to parse what is meant by that which comes after. When it is discussed in academia (and in truth this rule generally applies to fiction too), 'posthuman' is almost always deployed in a philosophical bioethics context, and this is one in which the distinctions between the possible interpretations are highly sensitive. It is consequently vital to make clearer what one means by posthuman- a clarification which, as mentioned above, is only rarely approached explicitly.

Many commentators hold that that a being with capacities beyond those of a 'normal' human is de facto not human, an idea championed by the American bioconservative Leon Kass:

the scientific project to master nature could, if we are not careful, lead to our dehumanization, via eugenics, drug-induced contentment, and other transformations of human nature... Will man remain a creature made in the image of God, aspiring to align himself with the divine, or will he become an artifact created by man in the image of God-knows-what[?]³

² *post-* in C. Soanes & A. Stevenson, eds. *Concise Oxford English Dictionary* 11th edn. revised, Oxford: Oxford University Press 2006 p. 1121

³ Quoted in H. Flaumenhaft. The Career of Leon Kass *J Contemp Health Law Policy* 2003; 20: 1-24

As I have discussed elsewhere⁴ Kass somewhat undermines his own claim here by invoking divine design as the essence of humanity, rather than cognitive development, given that such an appeal carries little weight if one does not believe in any god as he does. However, the essence of his point is clear. Similarly, and more explicitly, he states that artificial “transformations of human nature” will *de facto* prevent the subject from being human.⁵

Nicholas Agar (who agrees with Kass perhaps more in spirit than in letter) adds some detail, making a distinction on the grounds that moderate enhancements “do not exceed the maximum attainable [capacity] by any current or past human being”⁶, giving as examples to “make [children] as smart as the genius physicist Albert Einstein, or as good at tennis as the Swiss maestro Roger Federer”. This implies therefore that an enhancement which increases ability beyond the bounds of extant human achievement would warrant being termed ‘radical’, and Agar qualifies his ‘radical’ enhancement by having it “greatly exceed” the extant.

I have queried this particular viewpoint elsewhere⁷ by offering something of a *reductio*: we see (and celebrate) beings who exceed that which was previously the pinnacle of human achievement on a regular basis- every four years or so, for instance, at the Olympic Games. Does the reigning 100m champion cease to be human upon taking the world record? Does s/he then return to human status once surpassed? The same question applies to children born with genius-level intelligences (though these are more difficult to measure). The conservative position rests on comparative evaluation with a static norm, which does not really exist if it can be constantly surpassed to greater and greater degrees. This Boorsian⁸ biological normality, or ‘species-typical’ function is a convenient one, though it is only applicable in biological contexts, and possibly not especially useful in discussion of the nature of the posthuman, as we shall see a little later.

Agar goes on to say that because “[r]adically enhanced beings are... significantly “better” than us in various ways, they are different from us- so different, in fact, that they do not deserve to be called human.”⁹ This particular idea of ‘deserving’ is one to which I shall return, but it is useful to note here that ‘qualify’ may be a more useful term. The gist of Agar’s thought is present elsewhere throughout the literature, which generally follows the idea of the ‘posthuman’ as something beyond

⁴ Lawrence *op. cit.* 1. at 265

⁵ Flaumenhaft *op. cit.* 3

⁶ N. Agar. *Humanity’s End: Why We Should Reject Radical Enhancement*. Cambridge, MA: MIT Press, 2010 p.17.

⁷ Lawrence *op. cit.* 1

⁸ The idea was, if not created by, certainly codified by Boorse in his naturalistic account of disease, the Biostatistical Theory, in C. Boorse. 1997. A Rebuttal on Health. In *What is Disease* J. M. Humber & R. F. Almeder, eds. Totowa, NJ: Humana Press. p. 3–134.

⁹ Nick does go on to somewhat qualify his statement and add some subtleties in his later works *Truly Human Enhancement* (N. Agar. *Truly human enhancement: A philosophical defense of limits*. Cambridge, MA: MIT Press. 2013) and his new book *The Skeptical Optimist* (N. Agar. *The Skeptical Optimist: Why technology isn’t the answer to everything*. Oxford: Oxford University Press. 2015), as well as in personal discussion, though I understand his essential position to remain the same.

what is presently called human, a separate group.¹⁰ This is evident on both ‘sides’ of the enhancement debate. Consider, for example, the brief explanation of ‘posthuman’ offered to us by noted enhancement advocate and self-described transhumanist Nick Bostrom. He tells us that

[i]t is sometimes useful to talk about possible future beings whose basic capacities so radically exceed those of present humans as to be no longer unambiguously human by our current standards. The standard word for such beings is “posthuman”.¹¹

This description is notable for being one of the only points at which an author has deliberately stated their assumptions on the term,¹² though it is difficult to call it a clear explanation as it suffers from a fundamental problem. ‘Human’ is itself a greatly abused term, especially in the context of the enhancement/ posthuman debate, and the myriad of meanings ascribed to it could give ‘posthuman’ a very different slant depending on one’s understanding. For that matter, it has been an abused term from what may be the founding debates of modern bioethics, regarding moral status and the beginning of life. For instance, many may accept that a blastocyst or early-stage embryo would qualify as living genetically *Homo sapiens sapiens* tissue, but hold that it does not yet qualify as human (and thus qualify for protection). Thus it is essential to determine conclusively perhaps not a single standard as such, but that it is clear which of the possible meanings we are discussing in any given context. What is it that we are talking about going ‘beyond’?

What We Really Mean By ‘Posthuman’

There are, perhaps, three main senses in which the term ‘human’ is frequently employed- the biological, the moral, and the self- (or other-) idealising.¹³ In the first of these, human is often conflated with *Homo sapiens sapiens*, and used interchangeably with this term to refer to our taxonomic species¹⁴ (such as the common term ‘human anatomy’¹⁵). In the second sense, ‘human’

¹⁰ Amongst many: N. Bostrom. Why I want to be post human when I grow up. In *Medical Enhancement and Posthumanity*. B. Gordijn & R. Chadwick, eds. New York: Springer, 2008 p. 107-137; N. Bostrom. 2003. Transhumanist FAQ <http://www.nickbostrom.com/views/transhumanist.pdf> p5 (last accessed 21 Jan 2016); S. Marsen. Becoming More Than Human: Technology and the Post-Human Condition *J Evol Technol* 2008; 19: 1; A. Buchanan. Moral Status and Human Enhancement. *Philos Public Aff* 2009; 37,4: 364-81; D. DeGrazia, Genetic Enhancement, Post-persons and Moral Status: a Reply to Buchanan. *J Med Ethics* 2012; 38,3: 135-139; A. Buchanan. Still Unconvinced, but Still Tentative: a Reply to DeGrazia. *J Med Ethics* 2012; 38,3: 40-141; N. Agar. Why We Can’t Really Say What Post-persons Are. *J Med Ethics* 2012; 38,3: 144-145; J. Wilson. Persons, Post-persons and Thresholds. *J Med Ethics* 2012; 38,3: 143-144; D. DeGrazia. Genetic Enhancement, Post-persons, and Moral Status: Author Reply to Commentaries. *J Med Ethics* 2012; 38,3: 145-147.

¹¹ Bostrom. *Transhumanist FAQ* Ibid.

¹² Another notable example can be found throughout Chapter 3 of D. Degrazia. *Creation Ethics: Reproduction, Genetics, and Quality of Life*. New York: Oxford University Press 2012. p. 60-96

¹³ I would note here that in using ‘idealising’ I do not commit myself to a particular philosophical account of intent, but rather more simply I use the term within the bounds of its normal English deployment. It may be also be understood as “self-defining” or “self-developmental”.

¹⁴ Though there is a strong argument to be made that it is frequently used more broadly in academic discussion to refer to our *genus*. This is a topic which deserves exploration, but for which sadly there is insufficient space here. See, for instance, the widespread discussion regarding great ape personhood and the validity of making such beings subject to human rights law.

(or, to be accurate, 'humanity') generally refers to a community of beings which qualify as having a certain moral value or status; and the third, the self-idealising sense, is more descriptive- a label denoting the collection of qualities that make us who we are- or who we would like to be- as beings, or, to be pithy, 'what matters about those who matter'.¹⁶ Critics of this breakdown might query the extent to which the third and second senses overlap, and the answer is only to the extent that the self-ideal is, itself, morally idealizing. Asking myself a question as to what I would like to see myself as, and then answering it, does not necessarily give an answer of any moral value- if I were to tell myself that my self-ideal is to be a good sportsman, this is likely to be morally neutral. On the other hand, Idealizing being 'a good person' is likely to be much more morally directed. Similarly, to be in favour of enhancement is to be morally motivated- to quote Harris, "If it wasn't good for you, it wouldn't be enhancement."¹⁷

Considering the prevailing wisdom as espoused by Bostrom- that the posthuman is in some way 'beyond'- we could thus conclude that one might be a novel species or genus of hominid, naturally possessed of capabilities similar in nature to but surpassing in performance those widely considered species-typical for *Homo sapiens*. Or, perhaps we infer that the term indicates a morally more valuable being than a regular human, a post-person to our person? There's a third option: that a posthuman is a being which embodies our self-ideal more successfully than we do ourselves- one "more human than human". Which to choose? Or, is it even necessary to do so?

First Sense- Biological

Hayles suggested that "the humanities have always been concerned with shifting definitions of the human"¹⁸, and so too is the biological form of *Homo sapiens*- our first sense of 'human'- far from a constant. Hayles was concerned with a slightly different usage of 'posthuman'- in her case, the idea of a mode of critical discourse rather than an actual potential being- but the notion of shifting definitions rings true for biology also. For instance, an oft-discussed and highly visible change is in average heights of populations over time. To refer back to an earlier point, the so-called Irish Giant, Charles Byrne, whose skeleton is housed in the Hunterian museum¹⁹ may have been unusually tall at (at least) seven foot seven- perhaps taller than any other *sapiens* of the time, but this does not and did not make him something other than human.

¹⁵ This term even makes it onto the cover of one edition of the revered Gray's: H. Gray. *Anatomy of the Human Body*. 20th Ed. Philadelphia: Lea & Febiger, 1918

¹⁶ I am indebted to Sarah Chan for putting into words that which I could not, and for commentary on an early draft.

¹⁷ J. Harris. *Enhancing Evolution: The Ethical Case for Making Better People*. Princeton NJ, Princeton University Press 2010. p. 9

¹⁸ Quoted in D. Solomon. 2007. *Interview with N. Katherine Hayles: Preparing the Humanities for the Post Human*. National Humanities Center. Durham, NC. Collections http://asc.nhc.trp.nc.us/news/?page_id=81. (last accessed 21 Feb 16)

¹⁹ Royal College of Surgeons. 2015. Collections. London, UK. <https://www.rcseng.ac.uk/museums/hunterian/about-us/collections.html> (last accessed 21 Feb 16)

A simple literature search reveals hundreds of studies in anthropometric history, with many epidemiological and socio-economic correlates having been established, to the point where mean height is now utilised as an indicator for nutrition quality and general wellbeing.²⁰ Underlying all of these studies is measurable and definite change in height in whichever population is being examined. Similar fluctuations can be found in studies of weight (or more pertinently, mass)²¹, and any other varietal one might choose to scrutinise. It would appear, then, that our collective 'human' physical anatomy is in constant flux, and we know that our biological form does not lend us inherent value. *Homo sapiens'* biomechanical format- with cranium uppermost, opposable thumbs, bipedal, plantigrade ambulation, and particular musculoskeletal layout- is far from unique. All of these factors can be found in other animals, either separately or even all together in our simian genetic relatives. If our posthumans are taxonomically distinct from humans, then it follows that they would feature some degree of taxonomic *difference*, whatever the means of speciation that may result in their existence. Whilst this is eminently possible- despite the general blueprint being the same, we are a distinct species from *Pan troglodytes*- it is unlikely to be the case here.

To suggest that we today are not beyond in 'species-typical capacity' the 195,000 year old *Homo sapiens sapiens* fossils known as *Omo I* and *Omo II*²² is ludicrous. Yet we afford them human status in (both academic and casual) discussion²³, and in a strict Biological Species Concept²⁴ (BSC) understanding of biological species- this being the most commonly accepted- *Omo* and modern man are one and the same since we are not reproductively isolated. Indeed we afford the term 'archaic humans' to distinct species such as *Homo neanderthalensis* (with whom *H. Sapiens* is known to have interbred, muddying the waters of reproductive speciation within the *hominina* subtribe²⁵ and perhaps inclining us more towards a pragmatic view of species), *Homo rhodesiensis*, and *Homo heidelbergensis*.²⁶ We do not generally consider ourselves to be 'posthuman', and yet compared to our human ancestors, we are significantly different. It may be worth considering, too, that modern science and technological methods such as *in vitro* fertilisation and other assisted reproductive technologies may vastly increase the ambit of what 'reproductive isolation' and thus 'biological species' might mean.²⁷ The biological sense of 'posthuman', then, is unhelpful.

²⁰ e.g.: P. Dasgupta. *An Enquiry into Well-Being and Destitution*. Oxford: Oxford University Press 1995; R.H. Steckel. Stature and the Standard of Living. *J Econ Lit* 1995; 33,4: 1903-40.

²¹ K.M. Flegal *et al.* Overweight and obesity in the United States: prevalence and trends, 1960-1994. *Int J Obes Relat Metab Disord* 1998; 22,1: 39-47.

²² J. G. Fleagle *et al.* Paleoanthropology of the Kibish Formation, southern Ethiopia: Introduction. *J Hum Evol* 2008; 55,3: 360-365; I. McDougall. Stratigraphic placement and age of modern humans from Kibish, Ethiopia. *Nature* 2005 433,7027: 733-736.

²³ For instance, McDougall, *ibid.*

²⁴ E. Mayr. *Systematics and the origin of species from the viewpoint of a zoologist*. New York: Columbia University Press; 1942.

²⁵ Subtribe being the lesser taxonomic division between subfamily and genus, and which in this case includes *Homo* and related australopithecines after the cladogenic split from *Pan*.

²⁶ R. Dawkins. Archaic homo sapiens. In *The Ancestor's Tale*. Boston: Mariner; 2005

²⁷ As Harris has pointed out at some length. J. Harris. *Wonderwoman and Superman* Oxford: Oxford University Press; 2010:143 ff.

Second Sense- Moral Value

It is possible to reflect on the transitions from hominid to human and what this may say about the perceived possibility to transition further than this point, but it is important to note that our 'humanity' is a self-assigned classification, with boundaries that have changed and moved along with our development.

Historically, Frankfurt²⁸ and Piaget²⁹ both hold that the human sets himself apart through his cognitive (and self-determinative) ability, and this idea may link to those of 'moral community'³⁰ and non-finite personhood³¹. Echoing Harris' earlier work³² in conceptualising personhood, Steve Fuller posits that "perhaps membership in *Homo sapiens* is neither sufficient nor even necessary to qualify a being as human"³³, and uses the analogy of the republic. Being born into the republic confers no benefit over earning citizenship in some other fashion. The heritable quality is irrelevant- and this applies to 'human citizenship', or the human community, also. One either is, or is not, a citizen; it is a threshold concept. One cannot feasibly be a citizen to a greater degree than anyone else.³⁴ Equally, once a being passes the moral status threshold for the human community, it must count as human. Following this logic, humanity is a "matter of sufficiency"³⁵- an end-state for moral status, not a stepping-stone which one can be 'post'.

Fuller does fall into the trap here of failing to explain his terms. He appears to mean 'human, where human is being used as a political moral category' but this may have made for an ungainly *bon mot*. His analogy, too, lacks an important subtlety. In the later Roman Empire, I as a Briton may well have qualified to hold Roman citizenship³⁶- but this is not to say I would be *treated* as would a Roman by other Romans, which may be equally or even more important than the citizen label. As he states earlier in the same piece:

[F]or most of what is properly called 'human history' (i.e., the history that starts with the invention of writing), most of *Homo sapiens* have not qualified as 'human'—and not simply

²⁸ H. Frankfurt. Freedom of the Will and the Concept of a Person *J Philos* 1971; 68: 5-7.

²⁹ see, for example:

J. Piaget. *La construction du réel chez l'enfant / The construction of reality in the child*. New York, Basic Books 1937/1954; and J. Piaget. La causalité chez l'enfant. *Br J Psychol* 1928; 18: 276-301.

³⁰ L.E. Lomasky. *Persons, rights, and the moral community*. Oxford: Oxford University Press; 1987.

³¹ J. Overboe. Ableist Limits on Self-Narration: The Concept of Post-personhood. In *Unfitting Stories: Narrative Approaches to Disease, Disability, and Trauma*. V. Raoul, ed. Waterloo, ON: Wilfrid Laurier Univ. Press; 2007: 175-182.

³² J. Harris. *The Value of Life*. London, Routledge; 1985

³³ S. Fuller. 2014. *What scientific idea is ready for retirement? Steve Fuller: Human Being= Homo Sapiens* [edge.org http://edge.org/response-detail/25396](http://edge.org/response-detail/25396) (Last accessed 25 Feb 16)

³⁴ Though I acknowledge that in certain historical republics the theoretical benefit of this was less than obvious in practice.

³⁵ A. Buchanan. *Beyond Humanity?: The Ethics of Biomedical Enhancement* Oxford: Oxford University Press 2011; p. 224

³⁶ I thank Margot Brazier for this criticism in particular.

because they were too young or too disabled. In sociology, we routinely invoke a trinity of shame—'race, class, and gender'—to characterise the gap that remains between the normal existence of *Homo sapiens* and the normative ideal of full humanity.³⁷

It may be, here, that it is more helpful to understand 'have not qualified' as 'have not been regarded as qualifying'.

With this in mind, we might return to Agar's contention that "[r]adically enhanced beings are... significantly better than us in various ways, they are different from us- so different, in fact, that they do not deserve to be called human." In the sense of the concept of the human- the *moral*-community, it seems difficult to accept that Agar can be correct. The only means by which a being might "not *deserve* to be called human" would be for them to fail to reach the moral value threshold of the human community. If Agar is correct, then there is a danger of finding oneself stuck with an unpalatable conclusion born from the corollary of his point: that a being who somehow becomes significantly 'worse'³⁸ (or rather, less capable) than other humans would also "not deserve to be called human".³⁹ One way to conceptualise this is to consider the antonym of what we are calling 'second-sense "human"', which might roughly be 'dehumanised'- something historically done to ostracize peoples before enacting genocide against them, so to speak, guilt free- for instance Jewish peoples labelled 'rats' or Untermenschen during the Holocaust.⁴⁰

Perhaps, then, the idea of a being no longer *deserving* membership of the human community is too problematic. It might be better stated as *failing to qualify*. We have an instinctive reaction against the idea applying this judgment to a member of *Homo sapiens*, even one of very limited cognitive capacity. Philosophically, however, we would have to admit that such a being may not deserve to be called 'person'. It may be that the "human community" and the community of persons are not necessarily one and the same, and there is a political factor in play.

We have to recognize that someone who might fail the moral value threshold of personhood would still be included within our biological species, especially given the incoherence of 'species-typical capacity' in this context. Per Mayr⁴¹, because someone suffering a hypothetical disability that prevents sexual reproduction would be able, at least *but for* that disability, to reproduce with another human, they satisfy the Biological Species Concept. Throughout his work on enhancement, Agar generally uses the BSC to define the limits of prudential interest⁴²- as in, we

³⁷ Fuller, *op cit* 33.

³⁸ I use the term here as an antonym of Agar's "better", rather than as any reflection of my own opinions.

³⁹ Thanks to John Harris for pointing this out in discussion.

⁴⁰ Of course I am certain that Nick would never wish to imply such a thing; but it cannot be ignored as potentially being the other side of his argument here.

⁴¹ Mayr. *Op cit* 24.

⁴² Agar. *op cit* 6: throughout. Also N. Agar. Thoughts about our species' future: themes from Humanity's End: Why We Should Reject Radical Enhancement. *J Evol Technol* 2010; 1,21: 23-31.

have an interest in those we would be able to reproduce with. Possessing this interest in one group over another does not equate to speciesism- although it is a form of relativism, it is not perjorative, implying that those we cannot reproduce with have a lesser or different moral status. If so, it follows that it is nonsensical to force-apply a moral significance to species at all in terms of our second, communitarian sense of 'posthuman'. Indeed, there is no reason to assume that we would *not* have a prudential interest in beings we bring to fruition, by whatever means.

This leaves us, then, with the third potential sense of 'posthuman', which as mentioned stems from the use of 'human' to denote a desirable set of characteristics, qualities, and ideals that we hold about ourselves (or our moral community) as a whole.

Third Sense- Self-ideal

The entire history of humanity (in any sense) has been geared towards realizing these traits and ideals, generally practiced by means of enhancement. *Homo sapiens* could never have evolved successfully without the prior work of ancestor species to enhance their own capacities.

Paleoanthropological literature suggests in particular that the development of tool use for hunting was critical in being able to provide sufficient energy to fuel larger and larger brains.⁴³ It follows that an increased drain on the body's energy budget by a larger brain (with a greater capacity for work) requires a proportionately increased calorific intake, and gaining the ability to hunt animals for energy-rich meat would provide for this. The discovery of means to control fire by at least *Homo erectus*⁴⁴ (if not even earlier ancestors⁴⁵) also acted to improve nutrition through increasing the digestibility of foods through cooking⁴⁶. It also contributed⁴⁷ to such physiological factors which we use to define *Homo sapiens* such as smaller jaws and teeth than ancestor species⁴⁸. Less directly, fire's provision of warmth and light was vital for the survival of hairless ancestor species, driving off predators and making up for a lack of inherent ability to retain heat.⁴⁹

There is a rich tradition in both academic and fictional literature of creating alternative Latinate names for our species. Many of these reflect facets of third- sense 'humanity'; including *Homo socius*- man as a social being⁵⁰, *Homo faber*- fabricating man⁵¹ or in an alternate sense "man as

⁴³ A. Gibbons. Solving the Brain's Energy Crisis. *Science* 1998 280,5368: 1345–47.

⁴⁴ S.R. James. Hominid Use of Fire in the Lower and Middle Pleistocene: A Review of the Evidence. *Curr Anthropol* 1989 30,1: 1–26.

⁴⁵ *Ibid.*

⁴⁶ R. Wrangham & N. Conklin-Brittain. Cooking as a biological trait. *Comp Biochem Physiol a Mol Integr Physiol* 2003 136,1: 35–46.

⁴⁷ J. Pickrell. Human 'dental chaos' linked to evolution of cooking. *New Scientist online*, 19/02/05

<http://www.newscientist.com/article/dn7035-human-dental-chaos-linked-to-evolution-of-cooking.html#.U8WJSY1dUah> (last accessed 25 Feb 2016)

⁴⁸ R. Boyd. & J. Silk. *How Humans Evolved*. New York: Norton & Company 2003

⁴⁹ D. Price. Energy and Human Evolution. *Popul Environ* 1995; 16,4: 301-19

⁵⁰ P. Berger. & T. Luckmann. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* New York: Random House 1966

⁵¹ H. Arendt. *The Human Condition*. Chicago: The University of Chicago Press, 1958

the artifex of his destiny”⁵², and *Homo ludens*- playful man.⁵³ In this manner, *Homo sapiens* similarly only encapsulates one aspect of our being, *wise man* (or alternately *knowing man*, which could be argued to describe another aspect of our nature). It isn’t entirely clear why Linnaeus⁵⁴ chose to highlight this element of humanity with the chosen specific epithet,⁵⁵ though it is interesting to note that he himself termed it (and other descriptive elements of the binomial system) a ‘trivial name’.

Yves Gingras would have us named *Homo technologicus*, or technological man. Given that we are also *Homo faber*, we necessarily create our own world through our own perceptions and means- techniques- of reason and interpretation. Gingras holds that therefore everything around us is, and we ourselves are, artificial, a product of technology, that man is necessarily counter-nature.⁵⁶ This may or may not be true, but the idea of our being a product of technology is vitally important. Returning to an earlier point, I would suggest that given *Homo sapiens* only having arisen through being enhanced by technologies such as fire and tool use, we might be better termed *Homo augmentus*- ‘elevated man’ or ‘augmented man’. Gingras is correct in one regard, at least- we are able to possess the faculties we do as a species as a result of primitive technologies. However, it is important to be clear that we are elevated by the technology, not that we are ourselves technological creations.

If striving to uphold the elements of third-sense humanity is what makes us who we are, then a being “...significantly better than us...”⁵⁷ presumably must be able to uphold or realize these ideals to a greater degree than to which we are presently able. If it is these ideals that make us human, then upholding them more successfully- whether through technology or otherwise- must perforce make one more successful at *being* human. Note that this is not the same thing as being *other* than human, or *beyond* human.

How, then, can radical enhancement lead to something beyond humanity- would more enhancement not perhaps mean that we become fundamentally more human?

Taxonomy, Persons, and Continuity

⁵² F. Stoessl. *Die Sententiae des Appian Claudius Caecus*. *Rh Mus* 1979;122:18–23.

⁵³ J. Huizinga. *Homo ludens; a study of the play-element in culture*. Boston: Beacon Press 1955

⁵⁴ C. von Linné, (1758). *Systema naturæ. Regnum animale*. (10 ed.). pp. 18, 20. Available from: <http://www.biodiversitylibrary.org/item/80764#page/28/mode/1up> (last accessed 25 Feb 16)

⁵⁵ Plato’s taxonomical designation for our species- “featherless biped”- is possibly more literal. However, upon his proclaiming this, Diogenes swiftly presented him with a plucked chicken, so perhaps we can understand Linnaeus’ whimsy on this point. Laertius D. *The lives and opinions of eminent philosophers*. London: HG Bohn; 1853.

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⁵⁶ Y. Gingras. *Éloge de l’homme techno-logicus*. Saint-Laurent, Québec: Les Editions Fides 2005 p12.

⁵⁷ Agar *op cit*. 6

As noted, taxonomic classification does not itself lend any value to a given being. Linnaeus giving us the binomial of *H. sapiens* is simply a product of the system he developed for categorising animals. It is co-incidental that a literal translation of the Latin can be interpreted as describing something we consider to be inherent about us- had the system existed before our evolution, we could just as easily have been named after our discoverer or a beloved media personality,⁵⁸ as are many creatures today.

Consequently, to be beyond *H. sapiens sapiens*- *H. sapiens superior*, if you will⁵⁹ - is also meaningless in these terms. While we are far from the only species in a state of change- indeed every species is constantly subject to genetic drift and natural selection, however slow- it is still convenient to be able to label beings into categories. This is perhaps not the place to attempt to solve the so-called 'species problem', but the above does strongly lend itself to the pragmatist viewpoint⁶⁰ that species is conceptually convenient and practical, and therefore conceptually real; despite probably failing to qualify as a natural kind. If so, the biological sense of human is significantly weakened when comparing 'human' and 'posthuman'.

Obsession with forcing a distinction between human and posthuman is not particularly interesting, in and of itself, as it is clear that there is none meaningful to be drawn; but the idea of post-persons is a slightly different prospect, and is more at the heart of the true debate than the existing academic dialogue probably makes clear. Whilst it is likely true⁶¹ that some of our *Homina* ancestors were human pre-persons, assuming personhood is a threshold concept, the very fact of this would preclude there from being Homo post-persons since the threshold would already be surpassed. Rather than fear the conceptually troublesome, perhaps what we ought worry about is being depersonalized and not being de- or trans- or post-humanized. To have enhanced moral awareness, enhanced consciousness, *etcetera* is not an inherently bad thing- in fact, to possess these is simply to more fully realize characteristics that are part of the wider, for want of a better term, zeitgeist of the self-ideal. This is presumably not an outcome we should be worrying about, but rather one to be embraced.

⁵⁸ For instance, *Materpiscis attenboroughi*, *Agra schwarzeneggeri*, or the somewhat forced 'Spider from Mars' *Heteropoda davidbowie*.

⁵⁹ I admit that thanks are probably due here to Stan Lee and the many other writers of Marvel's *X-Men*, as well as innumerable other science-fiction sources, but *X-Men* is where I first became familiar with the term. See, for instance, S. Lobdell. The Story Of The Year! *Uncanny X-Men #346* (Marvel Comics) 1997 1:346; G. Morrison. Superdestroyer. *New X-Men #124* (Marvel Comics) 2002; 1:124; F. Tieri. Man and Monster: Conclusion *Weapon X #28* (Marvel Comics) 2004 2:28.

Other potential names proffered by Marvel include *H. mutandis*- 'Changed Man' (W. Ellis. Agent X-13's report on the emergency annexation of Earth-616 *Astonishing X-Men: Ghost Boxes #1* (Marvel Comics) 2008; 1:1; and *H. mutantur*- 'Changed Ones' (N. Gaiman. 1602 Part One; In Which We are Introduced to Some of Our Featured Players. *Marvel 1602 #1* (Marvel Comics) 2003;1:1.

⁶⁰ J. Dupré. In defence of classification. *Stud Hist Philos Biol Biomed Sci.* 2001; 32: 203–219.

⁶¹ Depending on their natures. This is a question which merits much deeper discussion, and though there is regrettably not space in this paper it will be a fruitful avenue for future research.

What this shows is that it is a mistake to envisage the posthuman as a different species. It is a mistake to imagine traits such as immortality or godlike powers as being changes that indicate a significant discontinuity. This is not to say that they could not change us at all. It seems likely that an immortal (though importantly not invulnerable) person would have an enduring and open-ended investment in the future. This may not necessarily be embodied simply in benevolent interest in their successors but rather a more personal, and not simply intellectual and transient, interest in the future that a more markedly mortal being could not possess.⁶² However it is entirely possible to possess continuity for some purposes and not for others. Therefore, the argument really is whether or not the acquisition of such traits represents a genuine transition in status, and whether what frightens conservative commentators is really the notion of this transition being premature or presumptuous for our species.

To such commentators, it seems to be comfortable to consider ‘humans’ as a finished product, that transformation is inimical to our essence as such. Darwinian, naturally occurring evolution appears to have slowed due to our technological elevation from a world of kill-or-be-killed. It may be comforting to imagine that this means it has stopped outright, though of course this is merely a function of our own limited perceptions and it continues at the same glacially slow pace as it ever has. Psychologically, we generally find clear division useful and pleasing, discrete categorization almost soothing. Perhaps this goes some distance to explain the above mindset.

There is certainly far more that might be said on this matter, though for the moment it is enough to acknowledge that people are perhaps afraid of the idea of further evolution because we (understandably!) dislike the idea of having further self-development to undertake. Once we finally reach adulthood, that is supposed to be the end of the road, the final stage. We see this reflected in literature- Tolstoy’s trilogy of *Childhood, Boyhood, and Youth*⁶³ separates out the milestones on the way to this point; Shakespeare’s famous ‘Seven Ages of Man’ monologue from *As You Like It*⁶⁴ divides a lifetime into the Acts of a play.

An Inclusive Terminology

Yet, if we must picture the posthuman as anything separate from ‘us’ in some way, if it is absolutely necessary to differentiate, perhaps it is this vision that is the most useful: an ‘Eighth Age of Man’, not quite the same and yet not different enough to be called ‘other’. As I have discussed, the touted ‘posthuman’ probably fails to satisfy any of the conditions to be categorized as either biologically or morally separate from ‘humans’. However, it would be somewhat parochial to try

⁶² Thanks to John Harris for reminding me of this important point. Harris has considered this issue in several places, notably Harris. *Enhancing Evolution* Ch. 3

⁶³ L. Tolstoy. Translation N. H. Dole. *The Complete Works: Childhood, Boyhood and Youth*. USA: TY Crowell; 1899.

⁶⁴ W. Shakespeare. *As You Like It*. In R. Proudfoot, A. Thompson & D.S. Kastan, eds. *The Arden Shakespeare*. Thomas Walton-on-Thames: Nelson and Sons Ltd. 1998. Act 2 Scene VII

and argue that it isn't useful to have a term we can use when discussing these potential beings. Whilst I do not accept that the theoretical period in which some people possess new abilities or traits and others don't will necessarily create a societal divide⁶⁵ (or, at least, I see no good reason why this is unavoidable); I concede that just as it is sometimes necessary to terminologically distinguish between races using anthropometric taxons such as Negroid, Mongoloid, or Caucasoid, there may well be some practical application in having one for the beings we may become. 'Posthuman', as I hope to have demonstrated, is perhaps not this term. Instead, I might tentatively suggest an alternative which approaches what I consider to be the core of the matter.

The point I have laboured herein is that there is no clean divide between today's *Homo sapiens* and tomorrow's potentially more capable *Homo sapiens*. The fact that we cannot distinguish this division is telling. It is difficult to accurately describe something as -post, as coming after, when it does nothing of the sort. Earlier in this paper I noted that the etymology of our English '-post' comes from the Latin, and so it seems fitting to return to the classical languages for a more useful label. The Greek prefix 'meta-',⁶⁶ originally, could be translated similarly to '-post' in suggesting 'after', but it also could mean 'beside', 'with', or 'among', depending on context and grammar.⁶⁷ A 'metahuman', then, might be a being beyond (or 'post-') us in terms of some capacity or another, but alongside us, amongst us, in as much as it is in all senses that matter no different to the 'humans' we consider ourselves to be. There will never come a point where we look at ourselves and exclaim, "We are now posthuman!"- rather, consider the disabled person. We do not hold that they should be treated differently- or, at least, we know that they ought not to be. This is no different from the IVF child. We do not consider them to be different in any way that matters, although it is occasionally useful to group people who are subject to some quirk of biology or fate together. So it is with the metahuman.

However, I acknowledge that this proposal may too run afoul of the so-called 'expressibility problem'. In this instance, the mere act of assigning terminology is inherently one of division. Even in the case of the previously mentioned useful anthropometric taxons, the use of these terms is designed to classify and separate. As I hope to have shown, this is precisely the problem with the notional posthuman. My own thoughts and terminologies, as well as those of various learned colleagues, seem to suffer this issue- it is difficult to conceive of a term which does not separate or 'other' in this fashion.

⁶⁵ As claimed by, for example, K. Warwick. *I, Cyborg*. Chicago: University of Illinois Press, 2004.

⁶⁶ as opposed to the epistemological usage in which it means 'about (something's own category)'.

⁶⁷ μετά, H. G. Liddell & R. Scott, *A Greek-English Lexicon*, on Perseus Digital Library.

Alternate terms⁶⁸ we might consider using include the 'Promethean Man', or the 'Enhanced Human'- both terms which when considered in the context of this paper may suffice well (being as they are more accurate descriptions than 'posthuman'), but which in practical usage would likely serve to partition by the very act of specifying. The simplicity of 'Enhanced Human' may make it the superior term in as much as it specifies the being in question as being *human*, but it carries the unwanted implication that being enhanced is a quality necessarily worth flagging- that it is a quality which in some way alters one's value.

Perhaps, ultimately, it is not vital to the debate to develop a terminology which solves this; though I would be interested to see one. Instead it would be more valuable, throughout the wider academic dialogue on the topic, to acknowledge and seek to avoid invoking the misapprehensions discussed here about humanity and value.

Conclusions

The commentators on both sides of the debate, concerning the meaning of 'posthuman' do so as if it had currency. It is deployed as though this term had either determinate meaning or as if it marked some indeterminate point (which could then be debated) at which humans transition to something else, something new. To use the term to imply species or value change, or a radical transition (the meaning of which is unclear in any case), there needs to be justification in a way which does not seem to have been delivered within the existing dialogue. Here, I have argued that this is not a plausible understanding, and furthermore that it is based in error- the analogous changes we have undergone throughout our history have not been thought to signal a qualitative change, or at least, not to any significant degree. We are, today, post-internet age humans; we are post-neolithic, post-bronze age, post-iron age. These transitions have not changed our value or the nature of our being- machine-age man, *Homo augmentus*, is still man. The touted 'posthuman' is, in general, overhyped and unwarranted by the evidence- either factual, or conceptual- and does not seem to have been subject to a close analysis until now. Perhaps commentators are aware of this failing and yet choose to avoid remedying it in order to preserve the utility of a concept so vague and all-encompassing, or for fear of undermining their arguments in some cases as explored herein. The 'posthuman' as the beyond is incoherent and obfuscatory at best, and it is important that we do not lose sight of the fact that species does not dictate moral value. The key is to ask not what we may become, but rather: why does it matter?

⁶⁸ These names courtesy of John Harris, who, despite his erudition, accepts that he "potentially failed" my challenge to avoid the trap at hand.